

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus that implements services for a waveform application, the apparatus comprising:
 - an object request broker that marshals data from the waveform application for communication, wherein at least a portion of the object request broker is implemented in hardware rather than software, ~~wherein the portion of the object request broker implemented in hardware comprises an application specific integrated circuit (ASIC); and~~
 - an object request broker interface that communicates ~~the~~ marshaled data using a memory pool, wherein at least a portion of the object request broker interface is implemented in hardware, wherein the portion of the object request broker and the portion of the object request broker interface implemented in hardware comprises a programmable application specific integrated circuit.
- 2-3. (Cancelled)
4. (Original) The apparatus of claim 1, wherein the object request broker interface comprises a pluggable protocol interface.
5. (Original) The apparatus of claim 1, wherein the object request broker interface comprises a custom interface.
6. (Previously Presented) The apparatus of claim 1, wherein the object request broker is a common object request broker architecture broker.
7. (Cancelled)

8. (Original) The apparatus of claim 1, wherein the at least a portion of the object request broker that is implemented in hardware comprises logic and data formatting functions that are determined to consume excessive processor throughput for a software application.

9. (Currently Amended) The apparatus of claim 1, ~~wherein the at least a portion of the object request broker interface that is implemented in hardware comprises~~ further comprising an operating system protocol stack, wherein the operating system protocol stack is implemented in hardware.

10. (Currently Amended) A method of marshalling transactions for waveform application communications using a common object request broker architecture broker, the method comprising:

marshalling data from a waveform application in a first communication device, wherein at least a portion of the marshalling data from the waveform application operation is implemented in hardware rather than software, ~~wherein the portion of the marshalling operation implemented in hardware comprises an application specific integrated circuit (ASIC); and~~

interfacing the marshaled data with a second communication device using a memory pool, wherein at least a portion of the interfacing the marshaled data operation is implemented in hardware, wherein the portion of the marshalling data from the waveform application and the portion of the interfacing the marshaled data implemented in hardware comprises a programmable application specific integrated circuit.

11. (Currently Amended) The method of claim 10, wherein the at least a portion of the marshalling data from the waveform application operation that is implemented in hardware comprises logic and data formatting functions that are determined to consume excessive processor throughput for a specific software application.

12. (Currently Amended) The method of claim 10, ~~wherein the at least a portion of the interfacing operation that is implemented in hardware comprises~~ wherein the step of

interfacing the marshaled data with the second communication device utilizes an operating system protocol stack, wherein the operating system protocol stack is implemented in hardware.

13-14. (Cancelled)

15. (Currently Amended) A system for a joint tactical radio system (JTRS) compliant device that provides communication at low power requirements, the system comprising:

an object request broker (ORB) that marshals data from a waveform application, wherein at least a portion of the object request broker is implemented in hardware rather than software, ~~wherein the portion of the object request broker implemented in hardware comprises an application specific integrated circuit (ASIC);~~

a pluggable protocol interface that communicates the marshaled data from the ORB, wherein at least a portion of the pluggable protocol interface is implemented in hardware, wherein the portion of the pluggable protocol interface and the portion of the ORB implemented in hardware comprise logic and data formatting functions of the ORB that are determined to consume excessive processor throughput for a specific software application and an interface to a shared memory pool, wherein the logic and data formatting functions are implemented as a programmable application specific integrated circuit; and

a memory pool that communicates data from the pluggable protocol interface directly and without transport overhead.

16-18. (Cancelled)

19. (Original) The system of claim 15, wherein the JTRS compliant device is in an unmanned craft.

20. (Original) The system of claim 15, wherein the JTRS compliant device is a battery powered radio.

21. (Previously Presented) The apparatus of claim 1, wherein no middleware is used.

- 22. (Cancelled)
- 23. (Previously Presented) The method of claim 10, wherein no middleware is used.
- 24. (Previously Presented) The system of claim 15, wherein the pluggable protocol interface is entirely implemented in hardware.
- 25. (Previously Presented) The system of claim 15, wherein the object request broker is entirely implemented in hardware.
- 26. (Previously Presented) The system of claim 25, wherein no middleware is used.
- 27. (New) The system of claim 15, wherein the JTRS compliant device is in an unmanned ground sensor.
- 28. (New) The system of claim 15, wherein the JTRS compliant device is in a missile.
- 29. (New) The system of claim 15, wherein pluggable protocol interface utilizes an operating system protocol stack, wherein the operating system protocol stack is implemented in hardware.